



Quality Management System
in accordance with
ISO 9001:2000
Cert # 05-R0925

EAGLE ARC 71“BW” Carbon Steel Flux-Cored Wire

U.S. ALLOY CO.
dba Washington Alloy
7010-G Reames Rd.
Charlotte, NC 28216
www.weldingwire.com



ALLOY DESCRIPTION AND APPLICATION:

EAGLE ARC BW is a baked flux cored wire designed for single or multi pass welding having a smooth arc transfer, low spatter, flat to slightly convex bead contour, with a high deposition rate and easily removal slag. This all-position baked wire has excellent feeding and low fume generation using 100% CO₂ or mixed gas making it a good choice for mild steel and higher strengths steels. The baked process ensures the removal of moisture and may reduce operating temperature along with less wear and drag in the feeding systems.

TYPICAL FCAW WELDING PROCEDURES; DCEP OPTIMUM IN BOLD (FLAT)

Wire Diameter	Wire Speed (ipm)	Amps	Volts	Electrical Stickout	CO ₂ (cfh)
0.035	275- 580 -780	130- 200 -260	23- 27 -30	3/8-3/4"	35-40
0.045	200-450 -600	150-250 -335	22-29 -33	1/2-1"	35-45
0.052	150- 400 -600	140- 275 -390	19- 28 -35	1/2-1"	40-50
1/16"	150- 330 -490	150- 330 -475	23- 30 -38	1/2-1"	40-50
5/64"	120- 250 -300	250- 385 -450	26- 29 -32	3/4-1 1/4"	40-50
3/32"	110- 185 -275	300- 425 -550	25- 29 -34	3/4-1 1/4"	40-50

Procedures may vary with change in position, base metals, filler metals, equipment and other changes.

TYPICAL WELD METAL CHEMISTRY (%) AND WELD METAL PROPERTIES;

	AWS Spec.	71BW	BASED ON 100% CO ₂ / MIX 75/25 IN BOLD		
			AWS Spec	Typical	
Carbon	0.12 max	0.037/ 0.043			
Manganese	1.75 max	1.28/ 1.44	Tensile Strength (psi)	70-95,000	88,183 / 92,679
Silicon	0.90 max	0.60/ 0.75	Yield Strength (psi)	58,000 min.	75,710 / 79,046
Phosphorus	0.030 max.	0.015/ 0.014	Elongation in 2"	22 % min.	28.9% / 28 %
Sulfur	0.030 max.	0.009/ 0.010	Charpy V-notch at 0°F	20 ft·lbs min.	40.3 / 50.8 ft·lbs
Copper	0.35 max.	0.01/ 0.02			
Nickel	0.50 max.	0.01/ 0.02	Chromium	0.20 max.	0.03/ 0.01
Molybdenum	0.30 max.	0.03/ 0.02	Vanadium	0.08 max.	0.02/ 0.02

AVAILABLE SIZES: TCB EAGLE BW= Spools of .045 X 33# OR 44#

SPECIFICATIONS; ANSI/AWS A5.20 E71T-1C/1M
ASME SFA A5.20 E71T-1C/1M
(Formerly classified as E71T-1)

EAST COAST
7010-G Reames Rd
Charlotte, NC 28216
Tel (888) 522-8296
Fax (704)598-6673

GULF COAST
4855 Alpine Drive #190
Stafford, TX 77477
Tel (877) 711-9274
Fax (281)313-6332

WEST COAST
8535 Utica Ave
Rancho Cucamonga, CA 91730
Tel(800)830-9033
Fax (909)291-4586



Warehouse Distribution Center – Dayton, Ohio

Head Office – Puyallup, Washington

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